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IN THE CLAIMS:

This listing of claims replaces all prior versions, and listings, of claims in the application.

CLAIMS What is claimed is:

1. (Original) An antibody fragment of the monomeric scFv type obtained from the RNA extracted from the hybridoma producing Mab CB/ior-CEA.1, that is specific for human carcinoembryonic antigen (CEA) either in soluble form, adsorbed to solid surfaces, or present in cells, and shows an affinity constant for CEA of $(5.0 \pm 0.4) \times 10^9 \text{ L mol}^{-1}$ and a recognition for such antigen dependent on the conservation of its glycosylation.
2. (Currently Amended) An antibody fragment of the monomeric scFv type according to claim 1, ~~characterized in that its~~ comprising an aminoacid sequence ~~is that referred set forth~~ in SEQ ID No 16.
3. (Original) An antibody fragment of the divalent (diabody) scFv type obtained from the RNA extracted from the hybridoma producing Mab CB/ior-CEA.1, that is specific for human carcinoembryonic antigen (CEA) either in soluble form, adsorbed to solid surfaces, or present in cells, and shows an affinity constant for CEA of $(2.8 \pm 0.3) \times 10^{10} \text{ L mol}^{-1}$ and a recognition for such antigen dependent on the conservation of its glycosylation.
4. (Currently Amended) An antibody fragment of the divalent (diabody) scFv type according to claim 3, ~~characterized in that its~~ comprising an aminoacid sequence ~~is that referred set forth~~ in SEQ ID No 17.

5. (Currently Amended) Antibody fragments according to ~~claims 1 to 4 characterized in that they are employed~~ claim 1 for the identification of tumor cells that express human CEA.
6. (Currently Amended) Recombinant or synthetic recombinant antibodies specific for human CEA ~~characterized in that they comprise~~ comprising the aminoacidic sequences of the variable domains VH and VL ~~reported~~ in SEQ ID 16 and SEQ ID 17, linked artificially in the form of Fab fragments and other scFv variants, bispecific antibodies, or fused to biologically or biochemically active domains.
7. (Currently Amended) Antibody fragments according to ~~claims 1 to 6 characterized in that they~~ claim 1 wherein the fragments are produced in recombinant bacteria or yeast, in insect or mammalian transfected cells, or in genetically modified organisms.
8. (Currently Amended) Antibody fragments according to ~~claims 1 to 7 characterized in that they additionally contain~~ claim 1 further comprising a radioactive label or detectable by other method, or a chemical or biological agent with antitumor potential.
9. (Currently Amended) Pharmaceutical composition ~~that contains~~ comprising antibody fragments according to ~~claims 1 to 8~~ claim 1, for the treatment of human tumors that express CEA.
10. (Currently Amended) Pharmaceutical composition ~~that contains~~ comprising antibody fragments according to ~~claims 1 to 8~~ claim 1, for the in vivo radiolocalization of human tumors that express CEA, using imaging techniques.
11. (Currently Amended) Reagent for the *in vitro* or *ex vivo* diagnosis ~~that contains~~ comprising antibody fragments according to ~~claims 1 to 8~~ claim 1, for the detection of human CEA, linked or not to cells.
12. (Currently Amended) Cells that express antibody fragments according to ~~claims 1 to 8~~ claim 1, obtained through genetic manipulation by way of recombinant DNA, being these cells bacteria, yeast, insect cells, mammalian cells, or plant cells.

13. (Currently Amended) Multicellular organisms that express antibody fragments according to ~~claims 1 to 8~~ claim 1, obtained through genetic manipulation by way of recombinant DNA, being these organisms transgenic animal or transgenic plants.
14. (Currently Amended) Vectors that encode for antibody fragments according to ~~claims 1 to 8~~ claim 1, obtained through genetic manipulation by way of recombinant DNA, being these vectors plasmids or sequences able to integrate in host cells.
15. (New) Antibody fragments according to claim 3 for the identification of tumor cells that express human CEA.
16. (New) Antibody fragments according to claim 3 wherein the fragments are produced in recombinant bacteria or yeast, in insect or mammalian transfected cells, or in genetically modified organisms.
17. (New) Antibody fragments according to claim 6 wherein the fragments are produced in recombinant bacteria or yeast, in insect or mammalian transfected cells, or in genetically modified organisms.
18. (New) Antibody fragments according to claim 3 further comprising a radioactive label or detectable by other method, or a chemical or biological agent with antitumor potential.
19. (New) Antibody fragments according to claim 6 further comprising a radioactive label or detectable by other method, or a chemical or biological agent with antitumor potential.
20. (New) Pharmaceutical composition comprising antibody fragments according to claim 3, for the treatment of human tumors that express CEA.
21. (New) Pharmaceutical composition comprising antibody fragments according to claim 6, for the treatment of human tumors that express CEA.
22. (New) Pharmaceutical composition comprising antibody fragments according to claim 3, for the in vivo radiolocalization of human tumors that express CEA, using imaging techniques.

23. (New) Pharmaceutical composition comprising antibody fragments according to claim 6, for the *in vivo* radiolocalization of human tumors that express CEA, using imaging techniques.
24. (New) Reagent for the *in vitro* or *ex vivo* diagnosis comprising antibody fragments according to claim 3, for the detection of human CEA, linked or not to cells.
25. (New) Reagent for the *in vitro* or *ex vivo* diagnosis comprising antibody fragments according to claim 6, for the detection of human CEA, linked or not to cells.
26. (New) Cells that express antibody fragments according to claim 3, obtained through genetic manipulation by way of recombinant DNA, being these cells bacteria, yeast, insect cells, mammalian cells, or plant cells.
27. (New) Cells that express antibody fragments according to claim 6, obtained through genetic manipulation by way of recombinant DNA, being these cells bacteria, yeast, insect cells, mammalian cells, or plant cells.
28. (New) Multicellular organisms that express antibody fragments according to claim 3, obtained through genetic manipulation by way of recombinant DNA, being these organisms transgenic animal or transgenic plants.
29. (New) Multicellular organisms that express antibody fragments according to claim 6, obtained through genetic manipulation by way of recombinant DNA, being these organisms transgenic animal or transgenic plants.
30. (New) Vectors that encode for antibody fragments according to claim 3, obtained through genetic manipulation by way of recombinant DNA, being these vectors plasmids or sequences able to integrate in host cells.
31. (New) Vectors that encode for antibody fragments according to claim 6, obtained through genetic manipulation by way of recombinant DNA, being these vectors plasmids or sequences able to integrate in host cells.